

Mineral Industry Surveys

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SILICON IN SEPTEMBER 2003

In September 2003, domestic production of silicon ferroalloys plus metal, excluding silvery pig iron, was estimated to have increased by 14% compared with that of the previous month, according to the U.S. Geological Survey. Domestic shipments decreased by 12% while producer stocks decreased by 41% compared with those for August 2003. All domestic data for ferrosilicon have been combined to avoid disclosing company proprietary data.

The ensuing discussion is based on a comparison of the August 2003 trade data, which is included in this report, to that of July 2003. Silicon metal imports, on a gross weight basis, decreased by 23%, owing primarily to a significant decrease in the trade category “silicon metal, 99.00% - 99.99% silicon.” Ferrosilicon imports, on a gross weight basis, increased by 1%, owing primarily to a significant increase in the trade category “ferrosilicon, 55% - 80% silicon, other.” On a gross weight basis, ferrosilicon and silicon metal exports increased by 74% and 1%, respectively. Ferrosilicon exports in both trade categories increased significantly. The increase in silicon metal imports was attributable to a

significant decrease in the trade category “silicon metal, 99.00% - 99.99% silicon.”

Update

On October 6, the International Trade Administration of the U.S. Department of Commerce (ITA) issued final results of its antidumping duty administrative review covering silicon metal imports from Brazil from July 1, 2001, through June 30, 2002. The ITA determined that silicon metal imports produced by Companhia Brasileira Carbureto de Calcio (CBCC) are no longer subject to antidumping duties. CBCC, which is owned by Dow Corning, qualified for the revocation of antidumping duties by having 3 consecutive years of sales at not less than fair value while making sales in commercial quantities in each of those 3 years (International Trade Administration, 2003).

Reference Cited

International Trade Administration, 2003, Silicon metal from Brazil—Final results of antidumping duty administrative review and revocation of order in part: Federal Register, v. 68, no. 193, October 6, p. 57670-57672.

Prices, cents per pound, silicon content

	<u>50% Ferrosilicon¹</u>	<u>75% Ferrosilicon²</u>	<u>Silicon Metal²</u>
September 4	46.0-48.0	44.5-45.5	60.0-61.0
September 11	46.0-48.0	44.0-45.0	60.0-61.0
September 18	46.0-48.0	42.0-44.0	60.0-61.0
September 25	46.0-48.0	42.5-45.0	60.0-61.0

¹Source: Ryan’s Notes, North American transaction price.

²Source: Platts Metals Week, dealer import price.

TABLE 1
U.S. PRODUCTION, SHIPMENTS, AND PRODUCER STOCKS OF SILICON ALLOYS AND METAL IN 2003^{1, 2, 3}

(Metric tons)

Material	Gross production ⁴		Net shipments		Stocks, September 30
	September	Year to date ⁵	September	Year to date ⁵	
Ferrosilicon:					
All grades ^{6, 7}	16,300	149,000	11,800	124,000	27,700
Silicon metal:					
Excludes semiconductor grades	11,300	98,700	11,500	93,700	4,230

¹Data are rounded to no more than three significant digits.

²Includes U.S. Geological Survey estimates.

³Data for silvery pig iron (less than 25% silicon) withheld to avoid disclosing company proprietary data.

⁴Includes in-plant consumption, as in production of magnesium ferrosilicon and other miscellaneous alloys.

⁵Includes revisions to previous months' data.

⁶Ferrosilicon categories were aggregated to avoid disclosing company proprietary data.

⁷Includes miscellaneous silicon alloys.

TABLE 2
U.S. EXPORTS OF FERROSILICON AND SILICON METAL IN AUGUST 2003^{1, 2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Ferrosilicon:						
More than 55% silicon:						
Canada	330	198	\$277,000	2,550	1,530	\$2,080,000
Malaysia	5	4	9,160	27	21	45,600
Mexico	60	36	57,600	872	531	936,000
Total	396	238	344,000	3,450	2,080	3,060,000
Other ferrosilicon:						
Australia	5	2	4,010	24	12	29,300
Brazil	--	--	--	100	45	128,000
Canada	248	124	178,000	2,000	999	1,580,000
France	--	--	--	18	9	15,000
Germany	--	--	--	9	3	11,700
Italy	--	--	--	32	17	52,600
Korea, Republic of	17	9	21,400	512	256	551,000
Malaysia	20	10	22,800	20	10	22,800
Mexico	161	76	137,000	1,030	509	924,000
Spain	--	--	--	9	5	8,630
Other (3 countries)	8	3	9,150	9	4	15,300
Total	460	224	372,000	3,760	1,870	3,340,000
Total ferrosilicon	856	463	716,000	7,200	3,950	6,400,000

See footnotes at end of table.

TABLE 2--Continued
 U.S. EXPORTS OF FERROSILICON AND SILICON METAL IN AUGUST 2003^{1,2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Metal:						
More than 99.99% silicon:						
China	77	XX	\$1,980,000	614	XX	\$17,600,000
France	13	XX	335,000	91	XX	2,210,000
Germany	26	XX	763,000	447	XX	14,400,000
Japan	180	XX	8,120,000	2,610	XX	116,000,000
Korea, Republic of	55	XX	2,340,000	457	XX	17,500,000
Malaysia	8	XX	1,400,000	52	XX	8,860,000
Norway	16	XX	413,000	532	XX	13,500,000
Taiwan	18	XX	641,000	106	XX	3,700,000
Ukraine	1	XX	27,400	53 ³	XX	1,470,000
United Kingdom	17	XX	2,600,000	148	XX	14,300,000
Other (38 countries)	43	XX	2,380,000	264	XX	16,600,000
Total	456	456^e	21,000,000	5,370	5,370^e	226,000,000
99.00% - 99.99% silicon:						
Brazil	9	9	25,300	295	292	606,000
Colombia	--	--	--	69	68	96,900
Denmark	--	--	--	7	7	9,270
Italy	306	303	431,000	310	307	444,000
Jamaica	--	--	--	9	9	15,300
Japan	--	--	--	15	14	39,700
Mexico	35	35	60,300	106	105	166,000
Norway	94	93	132,000	340	337	484,000
Singapore	--	--	--	7	7	9,020
Venezuela	--	--	--	39	38	56,200
Other (12 countries)	4	4	7,600	35	35	83,700
Total	447	443	656,000	1,230	1,220	2,010,000
Other silicon:						
Canada	200	194	263,000	2,220	2,160	2,430,000
Germany	--	--	--	42	41	55,500
Hong Kong	--	--	--	84	81	185,000
Italy	5	5	24,400	136	132	223,000
Japan	21	20	27,400	975	947	1,450,000
Korea, Republic of	--	--	--	188	182	248,000
Mexico	22	21	64,100	203	197	699,000
Netherlands	66	63	139,000	493	473	2,410,000
Taiwan	15	15	19,800	61	60	102,000
United Kingdom	62	60	74,900	469	456	546,000
Other (16 countries)	25	24	36,000	140	16	263,000
Total	416	403	649,000	5,010	4,860	8,610,000
Total silicon metal	1,320	1,300	22,300,000	11,600	11,500	237,000,000

^eEstimated. XX Not applicable. -- Zero.

¹Presentation of monthly data is based on the year-to-date quantities (gross weight) of the top 10 countries.

²Data are rounded to no more than three significant digits; may not add to totals shown.

³All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau.

TABLE 3
U.S. IMPORTS FOR CONSUMPTION OF FERROSILICON AND SILICON METAL IN AUGUST 2003^{1,2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Ferrosilicon:						
55% - 80% silicon, over 3% Ca:						
Argentina	--	--	--	640	317	\$614,000
Brazil	100	77	\$55,800	1,040	781	761,000
Canada	--	--	--	41	30	16,400
China	--	--	--	19	3	14,200
France	36	21	48,500	108	64	145,000
Germany	--	--	--	6	4	6,000
Mexico	--	--	--	13	9	48,000
Total	136	98	104,000	1,870	1,210	1,610,000
55% - 80% silicon, Other:						
Brazil	144	102	168,000	5,670	4,330	3,320,000
Canada	1,110	845	783,000	10,000	7,530	6,750,000
China	2,480	1,880	1,560,000	19,800	14,900	10,700,000
Iceland	1,630	1,230	960,000	8,160	6,120	4,870,000
Kazakhstan	--	--	--	17,600	13,500	12,400,000
Norway	5,310	3,990	3,630,000	8,760	6,540	7,810,000
Russia	585	444	386,000	14,300	10,200	8,450,000
South Africa	--	--	--	2,440	1,850	1,340,000
Ukraine	--	--	--	6,260	4,720	3,670,000
Venezuela	3,010	2,260	2,050,000	25,400	21,200 ³	17,400,000
Other (5 countries)	644	275	1,330,000	3,960	2,600	6,570,000
Total	14,900	11,000	10,900,000	122,000	93,500	83,300,000
80% - 90% silicon:						
Canada	--	--	--	38	30	16,800
South Africa	--	--	--	9	7	3,350
Total	--	--	--	47	38	20,100
Magnesium ferrosilicon:						
Argentina	380	181	265,000	1,790	814	1,240,000
Brazil	274	124	154,000	3,180	1,420	1,920,000
Canada	308	151	145,000	2,190	1,050	1,700,000
China	480	216	322,000	3,930	1,780	2,670,000
France	--	--	--	80	29	90,500
Germany	1	1	4,700	9	5	16,200
India	19	9	18,100	19	9	18,100
Japan	16	8	32,900	337	155	422,000
Netherlands	--	--	--	102	48	62,400
Norway	1,010	466	819,000	9,670	4,450	7,830,000
Total	2,490	1,160	1,760,000	21,300	9,750	16,000,000
Other ferrosilicon:						
Brazil	205	85	127,000	540	246	335,000
Canada	884	315	510,000	5,360	1,780	3,290,000
China	--	--	--	79	35	78,800
France	2	1	5,100	24	13	55,700
Russia	--	--	--	1,540	1,120	943,000
Ukraine	--	--	--	5	3	3,480
Total	1,090	401	642,000	7,550	3,190	4,710,000
Total ferrosilicon	18,600	12,700	13,400,000	153,000	108,000	106,000,000

See footnotes at end of table.

TABLE 3--Continued
 U.S. IMPORTS FOR CONSUMPTION OF FERROSILICON AND SILICON METAL IN AUGUST 2003^{1,2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Metal:						
More than 99.99% silicon:						
Belgium	--	XX	--	12	XX	\$48,000
China	(4)	XX	\$29,500	35	XX	429,000
Finland	--	XX	--	9	XX	29,100
Germany	15	XX	1,950,000	206	XX	25,700,000
India	--	XX	--	14	XX	18,900
Italy	11	XX	909,000	217	XX	10,600,000
Japan	51	XX	1,260,000	343	XX	9,990,000
Korea, Republic of	--	XX	--	85	XX	600,000
Poland	--	XX	--	4	XX	17,300
Spain	--	XX	--	4	XX	22,500
Other (7 countries)	1	XX	99,900	12	XX	863,000
Total	80	80 ^e	4,250,000	941	941 ^e	48,400,000
99.00% - 99.99% silicon:						
Argentina	300	298	283,000	739	734	700,000
Australia	363	361	399,000	3,630	3,360 ³	3,860,000
Brazil	3,170	3,140	3,560,000	35,400	35,100	41,700,000
Canada	1,560	1,550	1,840,000	10,800	10,700	12,800,000
China	--	--	--	269	263	240,000
Kazakhstan	100	99	94,500	520	515	517,000
Korea, Republic of	--	--	--	120	119	96,000
Malaysia	--	--	--	300	297	309,000
Norway	505	501	1,000,000	4,650	4,510	8,220,000
South Africa	2,570	2,560	2,950,000	21,400	21,200	24,400,000
Other (8 countries)	80	79	154,000	263	236	555,000
Total	8,650	8,590	10,300,000	78,100	77,100	93,400,000
Other silicon:						
Brazil	--	--	--	1,390	1,370	1,410,000
Canada	555	544	690,000	1,990	1,950	2,030,000
China	--	--	--	2,440	2,400	2,160,000
Germany	40	39	33,600	203	199	195,000
Kazakhstan	--	--	--	240	233	190,000
Norway	--	--	--	1,100	1,080	1,110,000
South Africa	739	726	713,000	6,220	6,110	5,970,000
Ukraine	51	50	48,200	680	669	638,000
United Arab Emirates	--	--	--	319	314	264,000
United Kingdom	(4)	(4)	3,310	561	546	595,000
Other (9 countries)	--	--	--	631	484	690,000
Total	1,390	1,360	1,490,000	15,800	15,400	15,300,000
Total silicon metal	10,100	10,000	16,000,000	94,800	93,400	157,000,000

^eEstimated. XX Not applicable. -- Zero.

¹Presentation of monthly data is based on the year-to-date quantities (gross weight) of the top 10 countries.

²Data are rounded to no more than three significant digits; may not add to totals shown.

³All or part of these data have been referred to the U.S. Census Bureau for verification.

⁴Less than 1/2 unit.

Source: U.S. Census Bureau.